# **MA24D54**

## Silicon epitaxial planar type

### For rectification

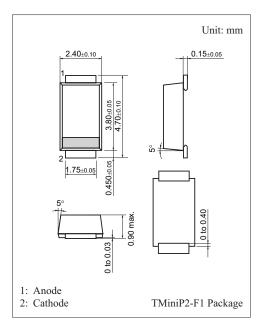
#### ■ Features

- Forward current (Average)  $I_{F(AV)} = 3.0$  A rectification is possible
- Small reverse current I<sub>R</sub>

### ■ Absolute Maximum Ratings $T_a = 25$ °C

Parameter	Symbol	Rating	Unit	
Reverse voltage	V <sub>R</sub>	30	V	
Maximum peak reverse voltage	$V_{RM}$	30	V	
Forward current (Average) *	I <sub>F(AV)</sub>	3.0	A	
Non-repetitive peak forward surge current	I <sub>FSM</sub>	60	A	
Junction temperature	T <sub>j</sub>	150	°C	
Storage temperature	T <sub>stg</sub>	-40 to +150	°C	

Note) \*: 50 Hz sine wave 1 cycle (Non-repetitive peak current)

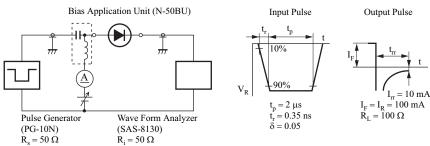


Marking Symbol: 4S

#### ■ Electrical Characteristics $T_a = 25$ °C±3°C

Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Forward current	$V_{\rm F}$	$I_F = 3.0 \text{ A}$			0.37	V
Reverse current	$I_R$	$V_R = 30 \text{ V}$			2.0	mA
Terminal capacitance	$C_{t}$	$V_R = 10 \text{ V, } f = 1 \text{ MHz}$		125		pF
Reverse recovery time *1	t <sub>rr</sub>	$I_F = I_R = 100 \text{ mA}, I_{rr} = 10 \text{ mA}$ $R_L = 100 \Omega$		40		ns
Thermal resistance	R <sub>th(j-a)</sub> *2			55		°C/W
	R <sub>th(j-a)</sub> *3			210		
	R <sub>th(j-l)</sub>			10		

- Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7031 measuring methods for diodes.
  - 2. This product is sensitive to electric shock (static electricity, etc.). Due attention must be paid on the charge of a human body and the leakage of current from the operating equipment.
  - 3. \*1: t<sub>rr</sub> test Circuit



- \*2: Mounted on an alumina PC board (board: 50 mm imes 50 mm imes 0.8 t, soldering land: 1.4 mm imes 2.1 mm)
- \*3: With a glass epoxy PC board (board: 50 mm  $\times$  20 mm  $\times$  1.0 t, soldering land: 2.0 mm  $\times$  2.0 mm + 20 mm  $\times$  0.8 mm)

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